

# **Errata Sheet for**

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

**TENTATIVE ORDER NO. R9-2004-0378**  
**NPDES PERMIT NO. CA0107239**

**WASTE DISCHARGE REQUIREMENTS  
FOR THE**

**UNIVERSITY OF CALIFORNIA**

**SCRIPPS INSTITUTION OF OCEANOGRAPHY**

**SAN DIEGO COUNTY**

The following changes are recommended for tentative Order No. R9-2002-0002. The deleted compositions are a *strikethrough* text. The added compositions are *underlined* text.

The subsequent numbering and minor typographic editing such as table of contents and page numbering will be completed after the adoption of the tentative Order.

## **Tentative Order**

### ***Modify Finding 2 as noted.***

2. On November 11, 1999, the Regional Board adopted Order No. 99-83, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0107239, Waste Discharge Requirements for the University of California, Scripps Institution of Oceanography. Order No. 99-83 regulates the discharge of up to ~~1.008~~ 1.25 million gallons per day (MGD) of waste seawater to the Pacific Ocean. Order No. 99-83 expires on November 11, 2004.

### ***Modify Finding 7 as noted.***

7. The flow-through seawater system at SIO has a pumping capacity of ~~1.008~~ 1.25 MGD. The seawater is pumped from the end of Scripps Pier and flows by gravity via a flume (supported by the pier) to two settling tanks. Outfall Nos. 4a and 4b discharge intake seawater settling tank overflow and sand filter backwash water respectively. The seawater is then pumped to sand filters to remove suspended matter before it is pumped to either the north or south storage tank. The seawater is circulated through various aquaria before it is discharged back to the ocean via Outfalls 001, ~~002~~ and 003. The wastewater from all

outfalls discharge onto the beach where it flows across the sand and into the San Diego Marine Life Refuge ASBS.

***Modify Finding 9 as noted.***

9. The five outfalls that discharge waste seawater to the San Diego Marine Life Refuge ASBS are identified below. The discharge volumes were estimated based on pumping rates. SIO is currently in the process of installing meters on the seawater intake system as well as on Outfalls 001, 003, and 004b.
- (a) Outfall 001: Discharges of approximately ~~325,000 to 425,000~~ 470,000 to 700,000 gallons per day (gpd) of waste seawater that has been circulated through the Stephen Birch Aquarium, the National Marine Fisheries aquaria, Hubbs Hall aquaria, and intermittent tank discharges from the Hydraulic Laboratory and Keck Center for Ocean Atmosphere Research.
  - (b) Outfall 002: ~~Discharges approximately 1,500 gpd of waste seawater from Scholander Hall aquaria. This Outfall does not discharge wastewater from the seawater system, but does discharge municipal storm water.~~
  - (c) Outfall 003: Discharges approximately ~~80,000 to 100,000~~ 140,000 to 200,000 gpd of waste seawater from the Experimental Aquarium and ~~100,000~~ 140,000 to 210,000 gpd from the Ring Tank Complex when it is in use. The Ring Tank Complex is in use approximately twelve to sixteen weeks during the year.
  - (d) Outfall 004a & 004b: Discharges approximately ~~30,000 to 150,000~~ 45,000 to 140,000 gpd of waste seawater from holding tank overflow and sand filter backwash respectively.

***Modify Finding 18 as noted.***

18. The regulated discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and ~~SWRCB State Board Resolution No.~~ 68-16. The impact on water quality will be insignificant provided the discharger complies with the conditions listed in this Order as established by the State Board Resolution No. 2004-0052.

***Modify Prohibition A.6 as noted.***

6. The discharge of a seawater volume in excess of ~~1.008 MGD~~ 1.25 mgd is prohibited unless the discharger obtains revised waste discharge requirements for the proposed increase in flow.

**Modify Special Conditions as noted.**

**C. SPECIAL CONDITIONS**

**Table 2.** Protection of Human Health-Noncarcinogens Effluent Limitations for Seawater System Discharges.

2,4-dinitrophenol	µg/L	4 12
Ethylbenzene	µg/L	12,300
Fluoranthene	µg/L	15 45

**Table 4.** Table A Effluent Limitations

Constituent	Units	Monthly Average (30-day)	Weekly Average (7-day)	Maximum at any time
Oil & grease	mg/L	25	40	75
Suspended solids	mg/L	See below +		
Settleable solids	mL/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
PH	pH units	Within limits of 6.0 - 9.0 at all times.		

+ The 2001 Ocean Plan requires the following:

Suspended Solids: Dischargers shall, as a 30-day average, remove 75% of suspended solids from the influent stream before discharging wastewaters to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L.

Constituent	Units	Monthly Average (30 day)	Weekly Average (7 day)	Maximum at any time
Oil & grease	mg/L	25	40	75

Constituent	Units	Monthly Average (30 day)	Weekly Average (7 day)	Maximum at any time
Suspended solids	mg/L	60	NA	120
Settleable solids	mL/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	pH units	Within limits of 6.0 - 9.0 at all times.		

## 2. Bacterial Characteristics

- b. The fecal coliform density based on a minimum of not less than five samples for any 30-day period, shall not exceed a geometric mean of 200 per 100 mL ~~for nor~~ shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 mL.

## 3. Reports and Studies

- d. The SWMP must include the following:
  - x. A description of the annual reduction in storm water discharge pollutants (~~due to reduction in the discharge volume or reduction in concentration of pollutants~~) caused by the implementation of the BMP, and

**Monitoring and Reporting Program**  
**No. R9-2004-0378**  
shall be modified as noted below.

***Modify Effluent Monitoring B.. as noted below.***

1. Table B and Table A Monitoring

Effluent monitoring for the seawater system and storm water discharge from Outfall 001, 002, 003, 004a, and 004b shall be conducted at the discharge point to the beach ~~(or at a locations just upstream to the discharge point and where no additional pollutants or waste discharges can be added to the discharge)~~, and shall be conducted as noted in *Table 1. Monitoring Requirements for Protections of Marine Aquatic Life*, *Table 2. Monitoring Requirements for Protection of Human Health-Noncarcinogens*, *Table 3. Monitoring Requirements for Protection of Human Health-Carcinogens*, and *Table 4. Monitoring Requirements for Table A Effluent Limitations*.

***Modify Table 1. as noted below.***

**Table 1. Monitoring Requirements for Protection of Marine Aquatic Life.**

Constituent	Units	6-Month Median Effluent Limitation	Sample Type	Analysis Frequency	Reporting Frequency
flow	mgd	=	continuous	daily	quarterly
Total residual chlorine—Outfall 003 only, when in use	mg/L	6	grab	monthly	quarterly
arsenic	µg/L	18	composite	2/year**	Semi-annual
cadmium	µg/L	3	composite	2/year**	Semi-annual
chromium (hexavalent) <sup>1</sup>	µg/L	6	composite	2/year**	Semi-annual
Copper, <b>Outfall 001, only</b>	µg/L	5	composite	monthly	quarterly
Copper, <b>other Outfalls</b>	µg/L	5	composite	2/year**	Semi-annual
lead	µg/L	6	composite	2/year**	Semi-annual

1 The discharger may, at its option, meet this limitation as a total chromium limitation.

Constituent	Units	6-Month Median Effluent Limitation	Sample Type	Analysis Frequency	Reporting Frequency
mercury	µg/L	0.239	composite	2/year**	Semi-annual
nickel	µg/L	15	composite	2/year**	Semi-annual
selenium	µg/L	45	composite	2/year**	Semi-annual
silver	µg/L	1.78	composite	2/year**	Semi-annual
zinc	µg/L	44	composite	2/year**	Semi-annual
cyanide <sup>2</sup>	µg/L	3	composite	2/year**	Semi-annual
total chlorine residual <sup>3</sup>	µg/L	6	composite	2/year**	Semi-annual
ammonia (as N)	µg/L	1800	composite	2/year**	Semi-annual
acute toxicity <sup>4</sup>	TUa	N/A	composite	2/year**	Semi-annual
chronic toxicity <sup>5</sup>	TUc	N/A	composite	2/year**	Semi-annual
phenolic compounds (non-chlorinated)	µg/L	90	composite	2/year**	Semi-annual
chlorinated phenolics	µg/L	3	composite	2/year**	Semi-annual
endosulfan <sup>6</sup>	µg/L	0.027	composite	2/year**	Semi-annual

2 If the discharger can demonstrate to the satisfaction of the Regional Board (subject to EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by Standard Methods 412 F, G, and H (Standard Methods for the Examination of Water and Wastewater, Joint Editorial Board, American Public Health Association, American Water Works Association, and Water Pollution Control Federation, most recent edition).

3 The effluent concentration and mass emission rate limitations for total chlorine residual are based on a continuous discharge of chlorine. Effluent concentration limitations for total chlorine residual, which are applicable to intermittent discharges not exceeding 2 hours, shall be determined through the use of the following equations:

$$\log C_o = -0.43 (\log x) + 1.8$$

$$C_e = C_o + D_m (C_o - C_s)$$

where:

$C_o$  = the concentration (in ug/L) to be met at the completion of initial dilution

$x$  = the duration of uninterrupted chlorine discharge in minutes

$C_e$  = the effluent concentration limitation (in ug/L) to apply when chlorine is being intermittently discharged

$D_m$  = the minimum probable initial dilution

$C_s$  = the background seawater concentration = 0

4 Acute toxicity monitoring shall comply with methods and species as specified in the 2001 Ocean Plan and Resolution No. 2004-0052.

5 Chronic toxicity monitoring shall comply with methods and species as specified in the 2001 Ocean Plan.

Constituent	Units	6-Month Median Effluent Limitation	Sample Type	Analysis Frequency	Reporting Frequency
endrin	µg/L	0.006	composite	2/year**	Semi-annual
HCH <sup>7</sup>	µg/L	0.012	composite	2/year**	Semi-annual
radioactivity (gross alpha and gross beta analysis)	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subsection 4, Group 3, Article 1, Section 30253 of the California Code of Regulations.		composite	2/year**	Semi-annual

*Modify Table 2. as noted below.*

**Table 2.** Monitoring Requirements for Protection of Human Health-Noncarcinogens.

Constituent	Units	Monthly Average (30-day) Effluent Limitation	Sample Type	Analysis Frequency	Reporting Frequency
Acrolein	µg/L	660	Composite grab	2/year**	Semi-annual
Antimony	µg/L	3600	composite	2/year**	Semi-annual
bis(2-chloroethoxy) methane	µg/L	13.2	composite	2/year**	Semi-annual
bis(2-chloroisopropyl) ether	µg/L	3600	composite	2/year**	Semi-annual
Chlorobenzene	µg/L	1710	Composite grab	2/year**	Semi-annual
Chromium (III) <sup>4</sup>	µg/L	570,000	composite	2/year**	Semi-annual
di-n-butyl phthalate	µg/L	10,500	composite	2/year**	Semi-annual
Dichlorobenzenes <sup>8</sup>	µg/L	15,300	composite	2/year**	Semi-annual
diethyl phthalate	µg/L	99,000	composite	2/year**	Semi-annual
dimethyl phthalate	µg/L	2,460,000	composite	2/year**	Semi-annual

6 Endosulfan shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.

7 HCH shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

8 Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.

Constituent	Units	Monthly Average (30-day) Effluent Limitation	Sample Type	Analysis Frequency	Reporting Frequency
4,6-dinitro-2-methylphenol	µg/L	660	composite	2/year**	Semi-annual
2,4-dinitrophenol	µg/L	12	composite	2/year**	Semi-annual
ethylbenzene	µg/L	12,300	Composite grab	2/year**	Semi-annual
fluoranthene	µg/L	45	composite	2/year**	Semi-annual
hexachlorocyclopentadiene	µg/L	174	composite	2/year**	Semi-annual
nitrobenzene	µg/L	14.7	composite	2/year**	Semi-annual
thallium	µg/L	6	composite	2/year**	Semi-annual
toluene	µg/L	255,000	Composite grab	2/year**	Semi-annual
tributyltin	µg/L	0.0042	composite	2/year**	Semi-annual
1,1,1-trichloroethane	µg/L	1,620,000	Composite grab	2/year**	Semi-annual

*Modify Table 3. as noted below.*

**Table 3. Monitoring Requirements for Protection of Human Health-Carcinogens.**

Constituent	Units	Monthly Average (30-day) Effluent Limitation	Sample Type	Sample Frequency	Reporting Frequency
acrylonitrile	µg/L	0.3	composite	2/year**	Semi-annual
Aldrin	µg/L	0.000066	composite	2/year**	Semi-annual
Benzene	µg/L	17.7	composite	2/year**	Semi-annual
Benzidine	µg/L	0.000207	composite	2/year**	Semi-annual
Beryllium	µg/L	0.099	composite	2/year**	Semi-annual
bis(2-chloroethyl) ether	µg/L	0.135	composite	2/year**	Semi-annual
bis(2-ethylhexyl) phthalate	µg/L	10.5	composite	2/year**	Semi-annual



Constituent	Units	Monthly Average (30-day) Effluent Limitation	Sample Type	Sample Frequency	Reporting Frequency
carbon tetrachloride	µg/L	2.7	composite	2/year**	Semi-annual
Chlordane <sup>9</sup>	µg/L	0.000069	composite	2/year**	Semi-annual
chlorodibromomethane	µg/L	25.8	composite	2/year**	Semi-annual
chloroform	µg/L	390	Composite grab	2/year**	Semi-annual
DDT <sup>10</sup>	µg/L	0.00051	composite	2/year**	Semi-annual
1,4-dichlorobenzene	µg/L	54	composite	2/year**	Semi-annual
3,3'-dichlorobenzidine	µg/L	0.0243	composite	2/year**	Semi-annual
1,2-dichloroethane	µg/L	84	Composite grab	2/year**	Semi-annual
1,1-dichloroethylene	µg/L	2.7	Composite grab	2/year**	Semi-annual
dichlorobromomethane	µg/L	18.6	composite	2/year**	Semi-annual
dichloromethane	µg/L	1350	composite	2/year**	Semi-annual
1,3-dichloropropene	µg/L	26.7	composite	2/year**	Semi-annual
Dieldrin	µg/L	0.00012	composite	2/year**	Semi-annual
2,4-dinitrotoluene	µg/L	7.8	composite	2/year**	Semi-annual
1,2-diphenylhydrazine	µg/L	0.48	composite	2/year**	Semi-annual
halomethanes <sup>11</sup>	µg/L	390	composite	2/year**	Semi-annual
heptachlor <sup>12</sup>	µg/L	0.00015	composite	2/year**	Semi-annual
Heptachlor epoxide	µg/L	0.00006	composite	2/year**	Semi-annual
hexachlorobenzene	µg/L	0.00063	composite	2/year**	Semi-annual
hexachlorobutadiene	µg/L	42	composite	2/year**	Semi-annual

9 Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlorden-alpha, chlorden-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

10 DDT shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

11 Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.

12 Heptachlor shall mean the sum of heptachlor and heptachlor epoxide.

Constituent	Units	Monthly Average (30-day) Effluent Limitation	Sample Type	Sample Frequency	Reporting Frequency
hexachloroethane	µg/L	7.5	composite	2/year**	Semi-annual
isophorone	µg/L	2190	composite	2/year**	Semi-annual
N-nitrosodimethylamine	µg/L	21.9	composite	2/year**	Semi-annual
N-nitrosodi-N-propylamine		1.14	composite	2/year**	Semi-annual
N-nitrosodiphenylamine	µg/L	7.5	composite	2/year**	Semi-annual
PAHs <sup>13</sup>	µg/L	0.0264	composite	2/year**	Semi-annual
PCBs <sup>14</sup>	µg/L	0.000057	composite	2/year**	Semi-annual
TCDD equivalents <sup>15</sup>	µg/L	0.0000000117	composite	2/year**	Semi-annual
1,1,2,2-tetrachloroethane	µg/L	6.9	Composite grab	2/year**	Semi-annual
tetrachloroethylene	µg/L	6	Composite grab	2/year**	Semi-annual
toxaphene	µg/L	0.00063	composite	2/year**	Semi-annual

13 PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

14 PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

15 TCDD EQUIVALENTS shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Constituent	Units	Monthly Average (30-day) Effluent Limitation	Sample Type	Sample Frequency	Reporting Frequency
trichloroethylene	µg/L	81	Composite grab	2/year**	Semi-annual
1,1,2-trichloroethane	µg/L	28.2	Composite grab	2/year**	Semi-annual
2,4,6-trichlorophenol	µg/L	0.87	composite	2/year**	Semi-annual
vinyl chloride	µg/L	108	Composite grab	2/year**	Semi-annual

**Modify Table 4. as noted below.**

**Table 4. Monitoring Requirements for Table A Effluent Limitations.**

Constituent	Units	Monthly Average (30-day)	Sample Type	Sample Frequency	Reporting Frequency
oil & grease	mg/L	25	grab	2/year**	Semi-annual
Suspended solids	mg/L	See below +	grab	2/year**	Semi-annual
settleable solids	mL/L	1.0	grab	2/year**	Semi-annual
Turbidity	NTU	75	grab	2/year**	Semi-annual
pH	pH units	Within limits of 6.0 - 9.0 at all times.	grab	2/year**	Semi-annual

\*\* The 2/year monitoring frequency is May-September (dry weather) and October—April (wet weather). The sample taken during the October—April monitoring period must be taken during a storm water discharge. ~~The sample from Outfall 004b shall be collected during the sand filter backwash discharge.~~

+ The 2001 Ocean Plan requires the following:

~~Suspended Solids: Dischargers shall, as a 30-day average, remove 75% of suspended solids from the influent stream before discharging wastewaters to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L.~~

Note: mgd = million gallons per day      ppt = parts per thousand      mL/L = milliliters per liter  
 mg/L = milligrams per liter      µg/l = micrograms per liter

**Modify Bacterial Monitoring as noted below.**

2. Bacteria Monitoring

Annually, the discharges from Outfall 001 shall be sampled and analyzed twice, once during dry weather discharge and once during a storm water discharge for fecal coliform, total coliform organisms, and enterococcus.

Annually, the discharges from Outfall 002, 003, 004a and 004b shall be combined as a flow weighted composite and shall be sampled and analyzed twice, once during dry weather discharge and once during a storm water discharge for fecal coliform, total coliform organisms, and enterococcus. The sample from Outfall 004b shall be collected during the sand filter backwash discharge.

When the Ring Tank is in use, the discharges from Outfall 003, shall be sampled and analyzed monthly for fecal coliform, total coliform organisms, and enterococcus.

***Modify Receiving Water, Sediment, and Ocean Plan Bacterial Monitoring as noted below.***

1. Receiving Water Monitoring, semi-annual reporting

Receiving water monitoring shall be conducted ~~at a location to be determined by the Regional Board just outside the surf zone or at a location that is identified in the benthic marine survey. The sampling of the receiving water may occur along the SIO Pier if the sampling location is within 5-meters seaward of the surf zone.~~ The Receiving Water shall be monitored for the applicable constituents listed in Tables 1 through 4 3 above. The sampling must be conducted once during dry weather and once during a storm water discharge. The sampling during a storm water discharge event must occur either during the storm water discharge or after the storm has passed and when SIO can safely collect a receiving water sample that is representative of storm water discharge conditions.

The receiving water sampling shall consists of 4 grab samples collected during a 24-hour period rather than a composite sample. The sample collected for volatile organic compounds shall be a single grab sample.

2. Sediment Monitoring, semi-annual reporting

Sediment monitoring shall be conducted ~~at a location to be determined by this Regional Board just outside the surf zone or at a location that is identified in the benthic marine survey.~~ The sediment shall be monitored for the applicable

constituents listed in Tables 1 through 4 above and shall be analyzed as a solid waste and reported as mg/kg (dry-weight). The sampling must be conducted once during dry weather and once during a storm water discharge. The sampling during a storm water discharge event must occur either during the storm water discharge or after the storm has passed and when SIO can safely collect a sediment sample.

The sediment monitoring shall be a grab sample of surface sediment and shall include a grain size, and total organic carbon analyses.

For the chronic toxicity monitoring analysis in Table 1, *Monitoring Requirements for Protection of Marine Aquatic Life*, is not required. For sediment toxicity testing, only an acute toxicity analysis using the amphipod *Eohaustorius estuarius* is required. The analytical methods in *USEPA 1994, Methods for Assessing the Toxicity of Sediment-associated Contaminants with Estuarine and Marine Amphipods*, EPA 600-R94-025 (USEPA, Office of Research and Development) must be used. Any modification of this method may be approved by this Regional Board in consultation with the Division of Water Quality of the State Board.

3. Ocean Plan bacterial water quality objectives – *Surf Zone* and *Nearshore* Monitoring, quarterly reporting.

*Surf zone* monitoring is intended to assess bacteriological conditions in areas used for body-contact activities (e.g., swimming); and to assess aesthetic conditions for general recreational uses (e.g., picnicking).

All *surf zone stations* shall be monitored as follows:

- a. Grab samples shall be collected and analyzed for total and fecal coliforms, and enterococcus at a minimum frequency of once per week throughout the year with at least five samples collected within any 30-day period. If possible, surf zone samples shall be taken when Outfall 004b has had a filter backwash discharge and the discharge has reached the surf zone.
- b. Samples shall be collected in accordance with “Standard Operating Procedures for the Collection of Water Samples for Bacterial Analysis from Ocean and Bay Receiving Waters” developed by the County of San Diego Department of Environmental Health and incorporated herein by reference.
- c. At the same time samples are collected from *surf zone stations*, the following information shall be recorded: observation of wind (direction and speed), weather

(e.g., cloudy, sunny, or rainy), current (e.g., direction), and tidal conditions; observations of water color, discoloration, oil and grease, turbidity, odor, and materials of sewage, storm water, or seawater system origin in the water or on the beach, filter backwash discharge from Outfall 004b and if the discharge reached the surf zone, and water temperature (°C).

*Nearshore* monitoring is intended to assess bacteriological conditions in areas used for body-contact activities (e.g. scuba diving) and where shellfish and/or kelp may be harvested; and to assess aesthetic conditions for general boating and recreational uses.

All *nearshore stations* shall be monitored as follows:

- d. Grab samples shall be collected and analyzed for total and fecal coliforms, and enterococcus at a minimum frequency of once per month throughout the year. If possible, near shore samples shall be taken when Outfall 004b has had a filter backwash discharge and the discharge has reached the surf zone.
- e. At the same time samples are collected from *nearshore stations*, the following information shall be recorded: observation of wind (direction and speed), weather (e.g., cloudy, sunny, or rainy), current (e.g., direction), and tidal conditions; observations of water color, discoloration, oil and grease, turbidity, odor, and materials of sewage, storm water, or seawater system origin in the water or on the beach, filter backwash discharge from Outfall 004b and if the discharge reached the surf zone, and water temperature (°C).

***Modify Table 5 as noted below.***

**Table 5.** Monitoring and Reporting Schedule.

Reporting Frequency	Report Period	Report Due
Quarterly	January through March	May 1
Quarterly	April through June	August 1
Quarterly	July through September	November 1
Quarterly	October through December	February 1
Semi-annually	January through June	<del>May 1</del> August 1
Semi-annually	July through December	February 1

## **FACT SHEET**

***Modify the Fact Sheet as noted below.***

*Page 1.*

The seawater system has the capacity to pump approximately ~~1.008~~ 1.25 million gallons per day (mgd) of seawater from an intake pump located on the seaward end of Scripps Pier. The seawater is filtered through high-speed sand filters located at the foot of the Scripps Pier. The filtered water is stored in two concrete storage tanks located near the filters. Any overflow water is discharged across the beach near the foot of the pier. The filtered seawater is delivered to the laboratories and aquaria of SIO, the Stephen Birch Aquarium-Museum, and the National Marine Fisheries Service aquaria. After circulation through the various aquaria, the water is discharged back into the ocean at outfalls identified as 001, ~~002~~, and 003. SIO also discharges wastes through two additional outfalls identified as outfalls 004a and 004b. Outfalls 004a and 004b discharge seawater overflow (from the intake flume or from the storage tank) and filter backwash water respectively. Outfalls 001, 002, and 003 also convey discharges from the municipal storm sewer system in and around the SIO.

*Page 2.*

**Outfall 001:** Outfall 001 discharges an average daily discharge of ~~0.385~~ 0.470 million gallons per day (mgd) and a maximum discharge of 0.700 mgd of seawater that has circulated through the following facilities:

- a. Stephen Birch Aquarium,
- b. National Marine Fisheries aquaria, and
- c. Hubbs Hall aquaria.

Intermittent discharges to Outfall 001 occur approximately four to ten times per year from tanks at the Hydraulic Laboratory and from the tanks at the Keck Center for Ocean Atmosphere Research.

**Outfall 002:** ~~Outfall 002 discharges an average daily discharge of 0.00144 mgd from the Scholander Hall aquaria. This Outfall does not discharge wastewater from the seawater system, but does discharge municipal storm water.~~

**Outfall 003:** Outfall 003 discharges an average daily discharge of ~~0.100~~ 0.280 mgd and a maximum discharge of 0.410 mgd from the Experimental Aquarium, and the Ring Tank complex (when the Ring tank is in use).

**Outfall 004a and Outfall 004b:** Outfall 004a and Outfall 004b discharge an average daily discharge of ~~0.050~~ mgd and a maximum discharge of 0.140 mgd. Outfall 004a discharges intake water and settling tank overflow. Outfall 004b discharges backwash

water from the sand filter backwash water system.

The five outfalls have an average daily combined discharge of ~~0.712~~ 0.795 mgd of seawater system discharges and are currently permitted to have a maximum daily combined discharge of ~~1.008~~ 1.25 mgd. The maximum daily combined discharge is based on the seawater intake pump capacity.

~~In January 2001~~ In November 2002 SIO applied to the State Board for an exception to the Ocean Plan to discharge to an ASBS. On July 22, 2004, the State Board adopted Resolution No. 2004-0052, which approved a Mitigated Negative Declaration for an exception for the discharges from the SIO seawater system and for the discharges of municipal storm water to the San Diego Marine Life ASBS.

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The maximum reported discharge flow rates for SIO is ~~1.008~~ 1.25 mgd based on the intake pump capacity. The Threat to Water Quality and Complexity (TTWQ/CPLX) rating for this facility is 2/B.